



## C.D.F.A. Seed Testing Fee Schedule

**Effective December 6, 2004**

### **Seed Testing Services:**

Seed samples may be submitted to the California Department of Food and Agriculture (C.D.F.A.) for service testing. This testing is provided for the fees listed on the following fee schedules. Other tests, examinations or investigations are based on an hourly charge of \$60.00.

### **Submit Samples To:**

Seed Laboratory  
Plant Pest Diagnostics Center  
3294 Meadowview Road  
Sacramento CA 95832

Telephone: (916) 262-1100  
FAX number (916) 262-1140 or (916) 262-1190

### **Providing Senders Identification and Identifying Samples:**

Samples should be marked with proper identification. Information such as sender name and address, seed kind, variety, lot number, lot weight, country of destination, etc. This information is needed for the seed analysis report.

Pesticide treated seed should be identified with pesticide name.

The name of a contact person with telephone, FAX number and e-mail address is important.

### **Tests Being Requested:**

Indicate tests being requested (purity, germination, all species examination, seed moisture determination, clean-out etc.).

### **Indicate Testing Rules:**

Federal Seed Act (FSA), Association of Official Seed Analysts (AOSA), International Seed Testing Association (ISTA), Canadian Seed Act & Regulations (CSAR).

### **Billing Information:**

All charges will be invoiced to the senders address unless another address is provided.

**C.D.F.A. Seed Testing Fee Schedule**  
**Purity and Germination Testing using A.O.S.A. or F.S.A. Procedures**  
(Effective December 6, 2004)

<b>Seed Kind</b> <sub>(1)</sub>	<b>Purity</b> <sub>(2)</sub>	<b>Germination</b> <sub>(3)</sub>	<b>Seed Kind</b> <sub>(1)</sub>	<b>Purity</b> <sub>(2)</sub>	<b>Germination</b> <sub>(3)</sub>
Alfalfa	39.00	30.00	Horsebean	30.00	55.00
Artichoke	33.00	36.00	Leek	49.00	31.00
Asparagus	35.00	40.00	Lettuce	52.00	36.00
Beans	30.00	47.00	Melon	42.00	36.00
Beets	56.00	51.00	Muskmelon	42.00	36.00
Bentgrass	101.00	41.00	Mustard	57.00	36.00
Bermudagrass	90.00	40.00	Oat	75.00	31.00
Bluegrass	53.00	36.00	Okra	49.00	31.00
Broccoli	57.00	31.00	Onion	49.00	31.00
Brome	hourly	38.00	Orchardgrass	hourly	42.00
Brussels sprouts	57.00	31.00	Parsley	60.00	40.00
Burclover	58.00	31.00	Parsnips	60.00	40.00
Cabbage	57.00	31.00	Peas	30.00	36.00
Cantaloupe	42.00	36.00	Pea, field	30.00	36.00
Carrot	61.00	40.00	Pepper	36.00	36.00
Cauliflower	57.00	31.00	Pumpkin	42.00	40.00
Celery	69.00	40.00	Radish	40.00	31.00
Chard, Swiss	56.00	51.00	Rice	54.00	36.00
Chicory	60.00	36.00	Ryegrass	85.00	36.00
Chives	49.00	35.00	Safflower	33.00	36.00
Clover	48.00	31.00	Sorghum	60.00	36.00
Clover, sweet	90.00	31.00	Spinach	37.00	31.00
Coriander	35.00	40.00	Spinach, New Zealand	36.00	40.00
Corn, field	30.00	37.00	Squash	42.00	40.00
Corn, sweet	37.00	40.00	Sudangrass	84.00	36.00
Cotton	39.00	55.00	Sunflower	33.00	54.00
Cowpea	30.00	46.00	Sweet clover	90.00	31.00
Cucumber	42.00	31.00	Tomato	36.00	36.00
Dichondra	30.00	40.00	Trefoil	48.00	36.00
Dill	60.00	40.00	Turnip	57.00	36.00
Eggplant	36.00	36.00	Vetch	62.00	31.00
Endive	60.00	40.00	Watermelon	42.00	36.00
Fennel	60.00	40.00	Wheat	65.00	29.00
Fescue	112.00	36.00	Wheatgrass	hourly	38.00
Flax	30.00	31.00			

(1) Fees for kinds not listed will be based on a similar seed kind or by a hourly rate of \$60.00/hr.

(2) Purity analysis includes a California Noxious Weed Seed Examination.

(3) Germination for I.S.T.A. rules is the same as above.

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## Fees for Additional Tests, Examinations and Services

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### Examinations:

<b>All States Noxious Weed Seed Examination.....</b>	<b>\$ 35.00</b>
Noxious weed seeds for all states are reported. This test requires a minimum of 30,000 seed units.	
<b>All Other Species Examination .....</b>	<b>\$ 35.00</b>
Examination listing all seed species found using I.S.T.A. testing rules. This test is included in the fee charged for I.S.T.A. purity tests.	
<b>A.O.S.A. Bulk Examination .....</b>	<b>\$ 35.00</b>
An examination for particular seed species or all other species reported. This test requires a minimum of 30,000 seed units. An hourly rate may be applied depending upon the seed kinds submitted.	
<b>California Noxious Weed Seed Examination .....</b>	<b>\$ 35.00</b>
California noxious weed seeds and rated pest seeds are reported. This test requires a minimum of 30,000 seed units. A California noxious weed seed examination is included in the purity fee when a A.O.S.A. or Federal Seed Act test is requested.	
<b>Foreign Noxious Weed Seed Examination .....</b>	<b>\$ 35.00</b>
Examination for Noxious Weed Seed for a particular country. Sender is requested to provide a list of the country's noxious or prohibited weed seeds if possible.	
<b>Sclerotia Percentage Examination .....</b>	<b>\$ 35.00</b>
The percentage of sclerotia found is reported. The fee for this test is reduced to \$20.00 when a purity or soil examination is also requested.	
<b>Soil Percentage Examination.....</b>	<b>\$ 35.00</b>
The percentage of soil found is reported. The fee for this test is reduced to \$20.00 when a purity or sclerotia examination is also requested.	
<b>Sod Quality Examination.....</b>	<b>hourly rate</b>
Examination is made for any other seed kinds found. An hourly rate of \$60.00 applies with a minimum of \$ 35.00 charge.	

### Additional Fees and Tests:

<b>International Seed Testing Association (I.S.T.A.) test .....</b>	<b>\$ 20.00 additional</b>
This fee is added to the A.O.S.A. purity testing fee. This test includes an I.S.T.A. all other species examination. No additional charges for germination tests using the I.S.T.A. rules	
<b>Canadian Seed Act &amp; Regulations (C.S.A.R.).....</b>	<b>\$ 20.00 additional</b>
This fee is added to the A.O.S.A. purity testing fee. No additional charges for germination tests using the C.S.A.R. rules.	
<b>Moisture Test.....</b>	<b>\$30.00</b>
A percent moisture determination is made using the I.S.T.A. oven method.	
<b>Tetrazolium chloride (TZ) Viability Staining Test.</b>	
List of fees for various seed kinds available on request.	
<b>Clean-out Tests</b> A list and examples of clean-out test fees is available on request.	
<b>Treated Seed Samples .....</b>	<b>\$8.00 additional</b>
Additional fee for pesticide treated seed and coated or pelleted seeds.	

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## Fees For Tetrazolium Viability Staining Tests

### The Tetrazolium Staining Test is Used To Determine Seed Viability -

The tetrazolium viability test (TZ or TTC test) is an enzyme staining test using 2,3,5-triphenyl tetrazolium chloride in a buffered aqueous solution. This stain indicates respiratory activity of the seed. In some seed lots, extreme dormancy or chemical fumigation may interfere with this test. The testing procedures followed are standardized methods published by the Association of Official Seed Analysts (A.O.S.A.) and the International Test Testing Association (I.S.T.A.). Seed are prepared by excising the embryos or cutting through the embryo after imbibing. Preparation and staining usually takes 2-3 days. This test requires extensive employee time. The sender should make special arrangements before submitting seed. This test requires 200 seed. At least 400 seed should be submitted.

Alfalfa	\$60.00	Cucumber	\$60.00	Sorghum	\$90.00
Artichoke	60.00	Dill	90.00	Spinach	75.00
Asparagus	90.00	Eggplant	75.00	Spinach, New Zealand	75.00
Beans	60.00	Endive	75.00	Squash	60.00
Beets	100.00	Fennel	90.00	Sudangrass	90.00
Bentgrass	90.00	Fescue	75.00	Sunflower	90.00
Bermudagrass	90.00	Flax	60.00	Sweet clover	60.00
Bluegrass	90.00	Horsebean	60.00	Tomato	75.00
Broccoli	75.00	Leek	75.00	Trefoil	60.00
Brome	90.00	Lettuce	75.00	Turnip	75.00
Brussels sprouts	75.00	Melon	60.00	Vetch	90.00
Burclover	60.00	Muskmelon	60.00	Watermelon	60.00
Cabbage	75.00	Mustard	75.00	Wheat	75.00
Cantaloupe	60.00	Oat	90.00	Wheatgrass	90.00
Carrot	90.00	Okra	75.00		
Cauliflower	75.00	Onion	75.00		
Celery	90.00	Orchardgrass	90.00		
Chard, Swiss	100.00	Parsley	90.00		
Chicory	75.00	Parsnips	90.00		
Chives	75.00	Peas	60.00		
Clover	60.00	Pea, field	60.00		
Clover, sweet	60.00	Pepper	75.00		
Coriander	90.00	Pumpkin	60.00		
Corn, field	60.00	Radish	60.00		
Corn, sweet	60.00	Rice	75.00		
Cotton	60.00	Ryegrass	90.00		
Cowpea	60.00	Safflower	90.00		

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## Fees For Clean-out Tests

**What is a Clean out Test? The Clean-out Test is a test used to estimate clean out needed to obtain an acceptable seed germination.** In a clean-out test, the percentage of inert and small light seed normally removed in seed conditioning is determined based on weight. When a germination test is performed on the remaining heavy seed, an estimate can be made to the amount of cleaning that is required to obtain satisfactory germination. The test procedure varies with different seed kinds. Inert and light seeds are removed by blowing and use of sieves. When sieve sizes are known to be used in seed mills with a particular seed kind, we use those sizes. We cannot not duplicate the seed cleaning procedures used in bulk seed processing, but our test results do allow an estimate of clean out required. The sender may need to interpolate our results to estimate final clean out estimate.

**Typical Test** - Typical clean-out test results include sample weight examined, percent pure clean seed, percent clean out which includes inert material, small, light, undersized seed. A germination test is made on the pure clean seed. Reported results may look like those on the right. Minimum fee is \$ 60.00 (based on one hour time) + cost of one germination test for the seed kind being tested.

**Options** - A purity analysis on the submitted sample for clean out or a noxious weed seed examination are options. Additional fees for these tests will be based on the time required to run the test at \$60.00 per hour. Time will be accumulative with the clean-out time. Information obtained from the purity analysis may not be helpful on unclean, field-run or very dirty samples since many small, light, and under developed seed are defined as "pure seed". When a purity analysis is requested, a second germination may also be added for the pure seed from that test for the standard germination fee for the seed kind.

### Clean-out Examination

(Seed from bulk separated by blowing into light and heavy portions.)

Clean Pure Seed . . . 96.52 %

Clean-Out . . . . . 3.48 %

(Clean-out includes light seed, seeds which are smaller than the industry acceptable size standard, light and heavy inert matter, other crop seed and weed seeds. )

### Germination:

(Pure heavy seed from above clean-out.)

Germination . . . . . 88 %  
(normal seedlings)

Dead Seed . . . . . 7 %

Abnormal Seedlings . 5 %

**Note:** All germination testing was based on a standard 400 seed test, 10 day test duration at 20°C, between paper blotters.

### Examples:

Carrot	Clean-out	\$60.00
or Onion	Germination	<u>\$40.00</u>
	Total Fee	\$100.00

Carrot	Clean-out	\$60.00
or Onion	Germination	\$40.00
	Germination (second)	\$40.00
	Purity analysis	<u>\$60.00*</u>
	Total Fee	\$200.00

Cucumber	Clean-out	\$60.00
	Germination	<u>\$31.00</u>
	Total Fee	\$91.00

Cucumber	Clean-out	\$60.00
	Germination	\$31.00
	Germination (second)	\$31.00
	Purity analysis	<u>\$60.00*</u>
	Total Fee	\$182.00

\*probably lower because the \$60.0 hourly rate is applied to the total of clean-out & purity analysis time.